



DAC

PATENT  
ATTORNEY DOCKET NO.: 066476-0024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

AUG 12 2004

OFFICE OF PETITIONS

In re Application of: )

J. W. PARK et al. )

Application No.: 09/742,302 )

Filed: December 22, 2000 )

Examiner: I. J. LOBO

For: EX-VESSEL CORE MELT RETENTION )  
DEVICE PREVENTING MOLTEN CORE )  
CONCRETE INTERACTION )

RECEIVED

SEP 02 2004

LICENSING & REVIEW

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE TO DECISION ON REQUEST UNDER 37 CFR 5.25**

This is in response to the Decision on Request Under 37 CFR 5.25 mailed June 30, 2004.

In the Decision, it is indicated that the requirements of 37 CFR 5.25 (3)(ii) have not been met since it appears that the proscribed foreign filing was discovered at or around July 2000 and the petition for retroactive license was not filed under September 2002.

Further to the filing of the Petition for Retroactive License Under 37 CFR 5.25 on December 22, 2000 (copy enclosed), Declaration of T.G. Theofanous under 37 CFR 1.68 on December 22, 2000 (copy enclosed), Response to decision mailed August 26, 2002 on September 3, 2002 (copy enclosed), Renewed Petition for Retroactive License under 37 CFR 5.25 on November 12, 2002 (copy enclosed), Applicant is puzzled as to why the outstanding June 30, 2004 Decision indicates that the requirements of 37 CFR 5.25 (3)(ii) have not been met. Specifically, as evidenced by the copies of the aforementioned filings, since discovering the proscribed filing, Applicant diligently filed the Petition for Retroactive License Under 37 CFR

BEST AVAILABLE COPY

5.25 on December 22, 2000 after gathering the required facts and obtaining the required Declaration of T.G. Theofanous.

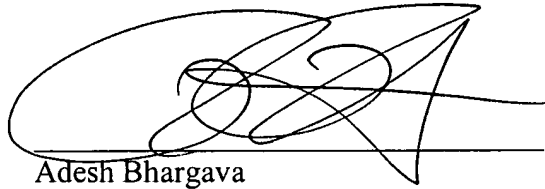
Applicants therefore petitions for license for foreign filing to be granted retroactive under the provisions of 37 C.F.R. 5.25.

Respectfully submitted,

**DYKEMA GOSSETT PLLC**

Dated: August 9, 2004

By:

A handwritten signature in black ink, appearing to be 'Adesh Bhargava', written over a horizontal line.

Adesh Bhargava

Reg. No. 46,553

DYKEMA GOSSETT PLLC  
1300 I Street, N.W., Suite 300 West  
Washington, D.C. 20005  
(202) 906-8696

66476-024-5

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**RECEIVED**

In re Application of:

) PATENT

AUG 12 2004

Jong Woon Park et al.

) GROUP: 3643

**OFFICE OF PETITIONS**

Serial No.: 09/742,302

) EXAMINER: Jeffrey L. Gellner

Filed: December 22, 2000

Ex-Vessel Core Melt Retention Device...  
Core Concrete Interaction

**RECEIVED**

SEP 02 2004

RENEWED PETITION FOR RETROACTIVE LICENSE  
UNDER 37 C.F.R. 5.25

Honorable Director for Patents  
Washington, D.C. 20231

November 12, 2002

Sir:

This is in response to the Communication mailed September 30, 2002 denying applicants' petition for retroactive license first filed December 22, 2000. Applicants hereby renew their petition for license for foreign filing, to be granted retroactive under the provisions of 37 C.F.R. 5.25.

Attached is a verified Declaration of Hwa Ik Lee, a senior partner of Young International Patent and Law Firm, declaring that he was unaware that a foreign filing license must first be obtained in connection with the filing of a patent application on an invention made at least in part by a United States inventor, and that such a first filing outside the United States was made by his office through error and without deceptive intent. The declaration is filed pursuant to 37 C.F.R. 5.25(a)(3)(iii), which the Assistant Patent Examiner found deficient in his Decision mailed September 30, 2002.

It is believed that all the requirements set forth in 37 C.F.R. 5.25 have been met for the granting of a retroactive license, and the grant of such license is respectfully requested..

The application filing date of December 22, 2000 is correctly set forth in the Decision. The filing date is incorrectly set forth as March 30, 2001 in the cover sheet attaching the Decision. It is requested that the date be corrected at the Licensing & Review Office.

Respectfully submitted,

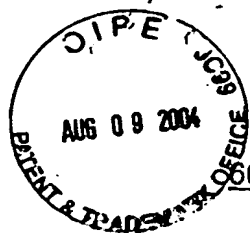
DYKEMA GOSSETT PLLC

By:



Lawrence R. Radanovic  
Registration No. 23,077  
Franklin Square, Third Floor West  
1300 I Street N.W.  
Washington, DC 20005-3353  
(202) 906-8624

Enclosure



66476-024-5

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: ) PATENT  
 Jong Woon Park et al. ) GROUP:  
 Serial No.: 09/742,302 ) EXAMINER:  
 Filed: December 22, 2000 )  
 Ex-Vessel Core Melt Retention Device... )  
 Core Concrete Interaction )

DECLARATION OF HWA IK LEE  
UNDER 37 C.F.R. 5.25(a)(3)(iii)

I, Hwa Ik Lee, hereby declare and state that:

I am senior partner of Young International Patent and Law Firm located at 4<sup>th</sup>  
 Fl., Yosam Building, 648-23, Yoksam-Dong, Kangnam-gu, Seoul 135-748 Korea;

At the request of my client, Korea Electric Power Corp., I prepared Korean  
 patent application No. 1999-63392 which was filed by my office with the Korean  
 Patent Office on December 28, 1999;

In accordance with Korean patent practice applications for patents are filed in  
 the name of the assignee, as applicant, and not in the name of the inventors;

At the time of preparing and filing the Korean application, on which convention  
 priority under 35 U.S.C. 119 is based, I was unaware that a foreign filing license  
 must first be obtained in connection with the filing of a patent application on an  
 invention made at least in part by a United States inventor;

A first filing outside the United States of the application on the invention made  
 at least in part by a United States inventor was made by my office through error and  
 without deceptive intent;

I hereby declare further that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application or any resulting registration, and that all statements made of his own knowledge are true and all statements made herein on information and belief are believed to be true.

Young International Patent and Law Office

H. I. L

Hwa Ik Lee

Date: Nov. 8, 2002

## FILE COPY

### DYKEMA GOSSETT PLLC

Third Floor West, Franklin Square  
1300 I Street, NW  
Washington, DC 20005-3306

THE PATENT AND TRADEMARK OFFICE OFFICIAL FILING DATE STAMP  
HEREON IS ACKNOWLEDGMENT OF FILING:

<input type="checkbox"/> Preliminary Amendment	<input type="checkbox"/> Patent APPLICATION
<input type="checkbox"/> Amendment	<input type="checkbox"/> Pages of Specification
<input type="checkbox"/> Reply Brief (in triplicate)	<input type="checkbox"/> Claims ( pages)
<input type="checkbox"/> Substitute Specification	<input type="checkbox"/> Declaration/Power of Atty.
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Abstract of the Disclosure
<input type="checkbox"/> Form PTO 1449 w/4 refs.	<input type="checkbox"/> Page of Informal Drawings
<input type="checkbox"/> Assignment Document	<input type="checkbox"/> PTO 1595
<input type="checkbox"/> Request for One Mo. Ext. of Time	<input type="checkbox"/> PTO 1390
<input type="checkbox"/> Certified Priority Document	<input type="checkbox"/> International Type Search Report
<input type="checkbox"/> Translation of Application	<input type="checkbox"/> WO 99/65411
<input type="checkbox"/> Issue Fee Transmittal (PTOL-85B)	<input type="checkbox"/> Post Card
<input type="checkbox"/> Req. for Corrected Filing Receipt w/Attachments	<input type="checkbox"/> Small Entity Declaration
<input type="checkbox"/> Submission of Late Declaration	
<input type="checkbox"/> Letter to Official Draftsman w/3 Sheets of drawings	
<input checked="" type="checkbox"/> (Other) Response to Communication re Petition for	

Retroactive License under 37 CFR 5.25 w/copy of Declaration of T.G. Theofanous and receipt  
sheet bearing the mailroom date stamp of 12/22/00

TITLE: Ex-Vessel Core Melt Retention Device Preventing Molten Core...

INVENTOR: PARK et al.

Serial No. 09/742,302

DOCKET No. 66476-024 -5

DATE: 9/3/02

DUE: 10/25/02

CLIENT: YOUNG INTERNATIONAL

charge deposit account \$-0-

66476/024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	PATENT
Jong Woon PARK et al.	)	Group 3643
Serial No. 09/742,302	)	Examiner: Jeffrey L. Gellner
Filed: December 22, 2000	)	

Ex-Vessel Core Melt Retention Device  
Preventing Molten Core Concrete Interaction

\* \* \* \* \*

RESPONSE

September 3, 2002

Commissioner of Patents and Trademarks  
Washington, DC 20231

Sirs:

This is in response to the Decision mailed August 26, 2002.

It is to be noted that the Petition for Retroactive License under 37 C.F.R. 5.25 was filed December 22, 2000, the filing date of the present application, not March 30, 2001 referred to the Decision at the penultimate paragraph on page 1 thereof.

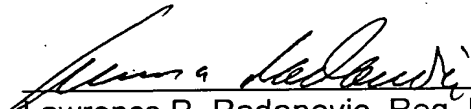
Enclosed is a copy of the receipt sheet bearing the mailroom date stamp of December 22, 2000 and indicating the enclosure of a Declaration of T. G. Theofanous under 37 C.F.R. 1.68. It is presumed that such petition was mislaid or lost by the Office.



Response  
Serial No. 09/74,302  
Page 2

As requested, enclosed is a duplicate Declaration of T. G. Theofanous under 37 C.F.R. 1.68 in support of the December 22, 2000 petition for retroactive license under 37 C.F.R. 5.25.

Respectfully submitted,

  
\_\_\_\_\_  
Lawrence R. Radanovic, Reg. No. 23,077

Attorney for Applicant

Attachments

DYKEMA GOSSETT PLLC  
FRANKLIN SQUARE -THIRD FLOOR WEST 300  
1300 I Street, N. W.  
Washington, D.C. 20005

ID56718

66476/024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jong Woon PARK et al.

Serial No.

Filed:

) PATENT  
)  
)  
)  
)  
)

Ex-Vessel Core Melt Retention Device  
Preventing Molten Core Concrete Interaction

\* \* \* \* \*

DECLARATION OF T. G. THEOFANOUS  
UNDER 37 C.F.R. 1.68

I, T. G. Theofanous, hereby declare and state that:

I am a joint inventor of the invention set forth in the above-identified application;

I am a citizen of the United States of America, residing at 857 Sea Ranch Drive,  
Santa Barbara, California 93109;

The invention as set forth in the above-identified application was made by me as  
a co-inventor in the United States;

I submitted a draft of my report entitled "An Ex-Vessel Coolability Concept For  
KNGR" to Dr. Jong Woon Park of KEPRI in South Korea by letter dated March 1, 1999  
(copy enclosed) *indicating the patentable value of it.*  
~~to determine if there was any interest in supporting such work.~~

Dr. Park wrote back to me on March 2, 1999 (copy enclosed) and on March 13, 1999  
(copy enclosed) Dr. Park e-mailed me several questions on the paper. On July 28, 1999, *28*  
*11/24/00*

1999 (copy enclosed) I received an e-mail from Dr. Park in response to mine of July 13. On February 17, 2000 I received an e-mail from Dr. Park (copy enclosed) informing me for the first time that a Korean patent application had been filed on my invention. By letter of February 17, 2000 (copy enclosed) I contacted a U.S. attorney to determine what my options were. On July 13, 2000 I wrote to Dr. Park (copy enclosed) to tell him about the "issues" raised by my U.S. attorney. He responded immediately, telling me that he understood, but that "things have gone too far." He advised me to wait and let the "Korean Patent Office submit the EVR patent application to U.S." I responded that he told me to make preparations with the U.S. patent, and that I was surprised with his position. No response was received until July 26, 2000 (copy enclosed) apologizing for being late, but not really responding to my e-mail of July 13, 2000. I received an e-mail on July 31, 2000 (copy enclosed) attaching the recently revised and corrected patent document on EVR received from his patent agency. On August 29, 2000 (copy enclosed) I got a fax from Dr. Park asking me to execute the Combined Declaration and Power of Attorney. On August 30, 2000 I sent an e-mail (copy enclosed) to Mr. Choi, a member of management of KEPRI. On October 4, 2000, I telephoned Lawrence R. Radanovic, Esq. of Dykema Gossett PLLC, and we discussed several background matters. I indicated that my U.S. attorney had advised that a retroactive foreign filing license must be obtained before filing of the application in the United States. On October 25, 2000 I sent Mr. Radanovic materials from my file relevant to this project;

After my discovery that the application had been first filed in Korea, I diligently sought the filing of an application corresponding thereto in the United States as well as a retroactive license for foreign filing, also as documented by the chronology of events set forth above;


The Korean patent application was first filed through error, and without deceptive intent and without the required license under section 5.11 having first been obtained;

To the best of my knowledge and belief the invention set forth in the subject Korean application does not disclose an invention within the scope of 35 U.S.C. 181;

To the best of my knowledge and belief the subject invention was not under a secrecy order at the time it was filed abroad, and that it is not currently under a secrecy order;

To the best of my knowledge or belief the subject invention was not made or conceived in the course of, or in connection with, or under the terms of any contract, subcontract, or arrangement entered into with or for the benefit of United States Atomic Energy Commission or its successors; Energy Research and Development Administration or the Department of Energy.

The undersigned declares further that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application or any resulting registration, and that all statements made of his own knowledge are true and all statements made herein on information and belief are believed to be true.


  
T. G. THEOFANOUS

Date: 11/24/00

parkjw@kepri.re.kr,3/1/99 3:44 PM -0700,Draft Report

1

To: parkjw@kepri.re.kr  
From: Eileen Horton <eileen@theo.ucsb.edu>  
Subject: Draft Report  
Cc:  
Bcc:

X-Attachments:  kepri.pdf

Dear Dr. Park:

Attached is a draft of my report, as promised. If you cannot read it, please let me know, and I will be able to fax it to you (please let me have your fax number).

I am excited about the prospects of commercializing this idea. It can work very well, even for existing reactors. I would recommend that KEPRI file for an international patent as soon as possible. If by chance KEPRI is not interested, I would hope you would let me know so that I can file for a patent myself.

I am looking forward to having KEPRI's comments on this draft, so I can finalize it. Especially, feel free to tell me of any areas where my reasoning is not clear enough or if you need further details.

Sincerely yours,

T.G. Theofanous, President  
Theofanous & Co., Inc.

#1

Jong Woon Park, 3/2/99 3:21 PM +0900, Re: Draft Report

1

X-Sender: parkjw@168.78.8.10  
 Mime-Version: 1.0  
 Date: Tue, 02 Mar 1999 15:21:34 +0900  
 To: "Professor Theofanous" <theo>  
 From: Jong Woon Park <parkjw@kepri.re.kr>  
 Subject: Re: Draft Report  
 Cc: eileen

Dear Professor Theofanous:

I received your report. It is good to read. Thank you for your elaboration.

We wish to file this idea for a patent. However, please give me 1 or 2 week to review and prepare questionnaires for full understanding, and to discuss with Dr. Oh. (Frankly, I have many questions.) I wish coming questions would not cause you a trouble.

My fax and phone numbers are changed to:  
 Fax: 82-42-865-5704  
 Phone: 82-42-865-5738

Sincerely,

Jong Woon Park  
 CARD/KEPRI

At 03:54 ÀÄÄ 99-03-01 -0700, you wrote:

>Dear Dr. Park:

>  
 >Attached is a draft of my report, as promised. If you cannot read it,  
 >please let me know, and I will be able to fax it to you (please let me have  
 >your fax number).

>  
 >I am excited about the prospects of commercializing this idea. It can work  
 >very well, even for existing reactors. I would recommend that KEPRI file for  
 >an international patent as soon as possible. If by chance KEPRI is not  
 >interested, I would hope you would let me know so that I can file for a patent  
 >myself.

>  
 >I am looking forward to having KEPRI's comments on this draft, so I can  
 >finalize it. Especially, feel free to tell me of any areas where my reasoning  
 >is not clear enough or if you need further details.

>  
 >Sincerely yours,

>  
 >T.G. Theofanous, President  
 >Theofanous & Co., Inc.

>  
 >Attachment Converted: c:\eudora\attach\kepri.pdf

>

Dear Dr. Park  
 I am delighted that you  
 enjoyed my report. I had  
 some tough time coming up  
 with an idea that would  
 be neat, cheap,  
 and acceptable.  
 I am happy that you  
 agree with the patent idea.  
 Looking forward to  
 your comments.  
 Sincerely  
 T.G.

Printed for T: Theofanous <theo@theo.ucsb.edu>

Jong Woon Park, 7/13/99 3:52 PM +0900, A Question

Date: Tue, 13 Jul 1999 17:52:55 +0900  
 From: Jong Woon Park <parkjw@kepri.re.kr>  
 Organization: KEPRI  
 X-Accept-Language: en,ko,ja  
 MIME-Version: 1.0  
 To: theo@theo.ucsb.edu  
 Subject: A Question

#3

Dear Professor Theofanous:

How have you been?

It is so bad that we cannot go further with EVC concept. However, we are interested in that design so much and I am waiting for an official final progress report.

Anyway, I wish to ask you a question if it does not cause you an inconvenience.

I am attaching a letter entitled "Lessons Learned from the ACRS Review of the AP600 Design" (from Mr. Dana A. Powers to Dr. William D. Travers at NRC).

In the section on "In-Vessel Retention of Core Debris" of the attached letter, it is said that "... More experiments and analyses are needed before in-vessel core debris retention can be credited as part of the licensing basis. At this time, we believe in-vessel core debris retention should only be considered as a severe accident management strategy"

I think that FSER of NRC to grant a Final Design Approval to AP600 design means IVR is credited as a Licensing Basis. In this regard, I wish to hear your opinion.

Looking forward to hearing from you soon.

Sincerely,

Jong Woon Park  
 CARD/KEPRI

March 22, 1999

Dr. William D. Travers  
 Executive Director for Operations  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555-0001

Dear Dr. Travers:

SUBJECT: LESSONS LEARNED FROM THE ACRS REVIEW OF THE AP600 DESIGN

During the 460th meeting of the Advisory Committee on Reactor Safeguards, March 10-13, 1999, we completed deliberations regarding lessons learned from our review of the AP600 passive plant design. As noted in our July 23, 1998 report, issues on the safety aspects of the AP600 application were resolved to our satisfaction. In the course of our review, however, we identified some lessons learned that could affect reviews of future applications or that could be relevant to operating plants.

Now regarding your question. Actually because of political reasons, it went on both sides of the river. Officially they declared IVR was not accepted as licensing basis, but unofficially they have the decision on it. Actually, again for political reasons, they never gave IVR a full hearing. →

Dear Dr. Park, note came on the way. Funny that your note came on the way. Thinking he write up on the patent. I understand you meeting the lawyers July 17, so wanted you to have it a few days before. Please tell lawyers we need to have some generality in description so we cover our claim well, and against any v mal changes by others. My final report will follow shortly. Is it true that you have not comments and suggestions for it? Otherwize it will be pretty much what you have already created for me? Love  
 10

Printed for Gail <gail@theo.ucsb.edu>



1

#4

responding. If you  
I be happy to send

*Monte Carlo*

Joint Progr.

Ad. 5

Size 8:30

Hum - Fri

SM + nrc

nrc

Weds

Weds

Para

PER

Jong Woon Park, 2/17/00 6:23 PM +0900, Preparing a Patent for USA

1

From: "Jong Woon Park" <parkjw@kepri.re.kr>  
To: "eileen" <eileen@crss.ucsb.edu>  
Subject: Preparing a Patent for USA  
Date: Thu, 17 Feb 2000 18:23:59 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

How are you.  
Here is a good news.

#5

Our upper manager told me to expedite the patent application for EVR to USA.  
I will try to finish the process in March.  
I appreciate that you have waited so long.  
Until the document is submitted to US patent office, I think Korean patent application will protect the priority as our lawyer said.  
So I think you can process for the new research on EVR is USA.

In the near future, I wish to submit a plan for reseearch project in relation with EVR idea.  
So if possible, please let me know in what specific area of EVR verification Korean organization can contribute.

Sincerely,

Jong Woon Park  
CARD/KEPRI

TO :  
FROM :

PHONE :

NOV. 13. 2000 10:04PM P 3

=?ks\_c\_5601-1987?B?udrBvr/u?=: 7/13/00 9:18 AM +0900, Re: US patent

3/11

1

From: "?ks\_c\_5601-1987?B?udrBvr/u?=" <parkjw@kepri.re.kr>  
To: "theo" <theo@cras.ucsb.edu>  
Subject: Re: US patent  
Date: Thu, 13 Jul 2000 09:18:33 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

I understand the situation where you stand.

However, things are gone too far.

The patent for EVR with KEPRI guy's names are already issued to Korean patent office for US application. If you progress the patent in US also, it will damage ourselves since KEPRI is spending money and time for that.

Actually, I am not that much interested to be a primary inventor. It was only a administrative way. Since KEPCO is public company, near every contract is based on KEPCO's and Korean rule. The same is true for the intellectual property. KEPRI will always say EVR is the KEPCO's property based on the Contract.

I think the problem comes from the fact that you are progressing patent in USA. Even though it is delayed too much, I wish you could be patient until Korean patent office submit the EVR patent to US. We are at the front door.

Sincerely,

Jeng Woon Park  
Center for Advanced Reactors Development  
Korea Electric Power Research Institute (KEPRI)  
103-16 Munji-Dong, Yusong-Gu  
305-380, Taejeon, Korea

----- Original Message -----

From: theo  
To: parkjw@kepri.re.kr  
Sent: Thursday, July 13, 2000 6:44 AM  
Subject: US patent

Dear Dr. Park:

In my pursuit of our patent here with the lawyers, I have encountered a couple of serious problems that you need to bring immediately to the attention of your management.

1. Apparently there is a law here that dictates that all discoveries made on US soil should be first patented in the US patent office. This applies independently from who paid for or who owns the invention. I did not know of any such law, but I am surprised that KEPRI's lawyers did not know about this law. In any case, my lawyer here thinks we can recover, by making a special application that explains the situation and pleads ignorance.

2. There is another strict aspect of patent law here that requires that only the real inventors appear on a patent. This is so severe that if it is found to be not true, the whole patent can be lost. In our case, the problem is that on the Korean patent they have put your name and Ohts as inventors. Since you have not been involved in the investigation, this is very risky and unacceptable for the US patent, according to my lawyer. Again, I did not know that, and frankly I don't even care if your names are on, but I didn't know until I saw the Korean application that you sent me that your names were on it too. Hopefully, this is not of concern in Korea, so there is nothing required for recovery, if we have only my name on the US patent. The KEPRI investors can be safeguarded by a special contractual agreement that is very easy to do, according to my lawyer here.

As I mentioned before this has nothing to do with property!! It has to do with law, and danger of jeopardizing the patent. Did you talk to your management?

Dear Dr. Park  
I am very surprised  
to look at your answer. You told me to make preparation with US patent, and in doing so I discovered all these things I wrote.

=?ks\_c\_5601-1987?B?udrBvr/u?-, 7/26/00 9:28 AM +0900, Re: Patent

From: =?ks\_c\_5601-1987?B?udrBvr/u? <>  
To: "theo" <theo@crss.ucsb.edu>  
Subject: Re: Patent  
Date: Wed, 26 Jul 2000 09:28:21 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

I am sorry that it's too late to respond.  
Please don't be unhappy. I would not quit communications.

The patent application for US is now at the Korean patent office.  
It will be submitted to US patent office in a moment. I have telephoned  
the lawyer to ask the exact time of submittal, but he is in vacation and  
will be back on Thursday.

I have talked to Korean lawyer about the patent problem. He said if  
we have a letter that you transfer your right for the EVR patent to KEPRI,  
there will be no legal problem in both US and Korea.

For the IVR, I understand what you want to say.  
I wish to state about situation of AP600 IVR in design point of view.  
For the large release frequency (level 2 PSA), the IVR is successful for  
only 65.7%. The reason is: in order for IVR to be successful, system  
depressurization and cavity flooding should be established.

Even though reactor vessel failure of AP600 would be physically  
unreasonable once depressurized and cavity flooded, the system  
failure (depressurization and cavity flooding) is not physically  
unreasonable.

That is the same situation for the KNGR. Difference is the probability of  
IVR once depressurized and flooded. Even though it is lower  
for the KNGR and may not be physically unreasonable, we have to  
think in a systems point of view. I think we don't have to pose  
too many resources to one severe accident strategy since there  
is no physically unreasonable system failure.

I am preparing calculations as you requested.

Sincerely,

Jong Woon Park  
Center for Advanced Reactors Development  
Korea Electric Power Research Institute (KEPRI)  
103-16 Munji-Dong, Yuseong-Gu  
305-380, Taejeon, Korea

----- Original Message -----

From: theo  
To: parkjw@kepri.re.kr  
Sent: Wednesday, July 26, 2000 3:15 AM  
Subject: Patent

Dear Dr. Park:

You have done this before, so I don't mind telling you that I do not appreciate your shutting  
off the communications, on the excuse that you are away, whenever you wish. I am very unhappy  
and I am going to take steps to make this known, unless I hear from you in two days from now  
something that makes sense.

4/11  
It is normal that  
during such submittal  
the lawyers work with  
the inventor, to make  
the best possible  
representation. I need  
to talk to your  
management urgently.  
(in a)

Dear Dr. Park  
I am very unhappy  
because your lawyers do not  
know what they are doing.  
One needs much experience  
to prepare properly a patent.  
My lawyer here had to  
rewrite almost  
the whole thing.  
etc

=?ks\_c\_5601-1987?B?adrBvr/u?=  
7/31/00 6:30 PM +0900, Re: Patent

From: =?ks\_c\_5601-1987?B?adrBvr/u?=<>  
To: "theo" <theo@crsa.ucsb.edu>  
Subject: Re: Patent  
Date: Mon, 31 Jul 2000 16:30:53 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

Waiting for your response to my previous e-mail.  
I am attaching the recently revised and corrected patent document  
on EVR received from our patent agency.

Looking forward to receiving your comments on that.

Sincerely,

Jong Woon Park  
Center for Advanced Reactors Development  
Korea Electric Power Research Institute (KEPRI)  
103-16 Munji-Dong, Yuseong-Gu  
305-380, Taejeon, Korea

Attachment converted: Archive:X1632.doc (WDBH/MSWD) (00002520)

Also I have  
not contacted  
your management  
yet. I will do  
next week.

Dear Dr Park what  
I don't know waiting for  
e-mail you are As far  
me to respond to. responded  
I know I have e-mails.  
to all previous  
I didn't get a chance  
to read carefully for  
patent your campaign  
prepared because  
of travel. I will  
do so in  
do week and  
January

# FAX COVER SHEET

Korea Electric Power Research Institute  
Korea Electric Power Corporation

Yusung-gu, Munji-dong  
103-16, Taejon, 305-380  
Korea  
Fax: 82-42-865-5704

6/11

Date: August 29, 2000  
No. of pages to follow: 4

TO: Professor Theofanous  
CRSS, UCSE  
Phone:  
Fax: 1-805-682-2033

FROM: Jong Woon Park  
KEPRI  
Phone: 82-42-865-5738  
Fax: 82-42-865-5704  
E-Mail: parkjw@kepri.re.kr

---

## MESSAGE

Dear Professor Theofanous:

Have you reviewed the patent document? Please let me know if it should be modified.

Our patent agency appointed US attorney for USA application of patent on EVR, and asked us to sign on the attached "Combined Declaration and Power of Attorney for Utility Patent Application".

Please sign inside the box titled "Inventors Signature" on the right side of your name in page 2, and re-send it to me by air mail (we need original one).

Best Regards,

Jong Woon Park

---

Ramp@kepri.re.kr, 8/30/00 8:44 AM -0700, Patent

1

To: Ramp@kepri.re.kr  
From: theo <theo@theo.ucsb.edu>  
Subject: Patent  
Cc: ikyang@kepri.re.kr  
Bcc:

11/11

X-Attachments:

Dear Mr. Choi,

As you may know, my work for KEPRI on KNGR debris coolability has led to a new and interesting design concept that I thought was patentable. Unfortunately, what should have been a very good experience for all of us is becoming increasingly more messy and time consuming. I am especially disturbed and disappointed by KEPRI's handling of this whole situation, at least as far as it is evidenced through my contact, Dr. Jong Woon Park. Further, we are running a serious risk of failing to capitalize on what I think is a breakthrough in severe accident management, not only for advanced, but also for existing reactors.

Throughout this painful process, Dr. Park keeps telling me that he follows "orders" from superiors, so really my contention is not with him. In fact, neither is it with anybody else, but I thought you should know that the whole process, as being pursued by KEPRI, perhaps as a result of neglect, miscommunication, or whatever other reason, is not according to the high professional standards I am accustomed to.

Hopefully we can recover from it, but to do so will require an immediate mutual understanding, and a prompt change in how we go about it. Towards this end I have decided to write to you. This and to ask your opinion on how to accomplish this. My suggestion is that we begin with a brief phone conversation. If you agree, please let me know what times I can find you and where in the next few days, and I will be happy to call you. Or, you can call me when you come in this morning about 9 a.m. your time, 4 p.m. my time. I will be at the office (805) 893-4900.

Sincerely,

TO : T H C

FILE COPY

DYKEMA GOSSETT PLLC

Third Floor West, Franklin Square  
1300 I Street, NW  
Washington, DC 20005-3306



PATENT AND TRADEMARK OFFICE OFFICIAL FILING DATE STAMP  
HEREON IS ACKNOWLEDGMENT OF FILING:

- |  |  |
|--|--|
| <input type="checkbox"/> Preliminary Amendment   | <input checked="" type="checkbox"/> UTILITY APPLICATION                |
| <input type="checkbox"/> Amendment/Req. for Reconsideration                                    | <input checked="" type="checkbox"/> 8 Pages of Specification           |
| <input type="checkbox"/> Reply Brief (in triplicate)   | <input checked="" type="checkbox"/> 3 Claims (1 page)                  |
| <input type="checkbox"/> Substitute Specification  | <input type="checkbox"/> Declaration/Power of Atty.                    |
| <input type="checkbox"/> Information Disclosure Statement                                      | <input checked="" type="checkbox"/> Abstract of the Disclosure         |
| <input type="checkbox"/> Form PTO 1449 w/4 refs.   | <input checked="" type="checkbox"/> 2 Page of formal Drawings          |
| <input type="checkbox"/> Assignment Document   | <input type="checkbox"/> PTO 1595                                      |
| <input type="checkbox"/> Request for Extension of Time   | <input type="checkbox"/> PTO 1390                                      |
| <input type="checkbox"/> Certified Priority Document   | <input type="checkbox"/> Intern. Search Report/Int. Prel. Exam. Report |
| <input type="checkbox"/> Translation of Application  | <input type="checkbox"/> WO 99/65411                                   |
| <input type="checkbox"/> Issue Fee Transmittal (PTOL-85B)                                      | <input checked="" type="checkbox"/> Post Card                          |
| <input type="checkbox"/> Req. for Corrected Filing Receipt w/Attachments                       | <input type="checkbox"/> Small Entity Declaration                      |
| <input type="checkbox"/> Submission of Priority Document                                       |  |
| <input type="checkbox"/> Letter to Official Draftsman w/1 Sheet drawings                       |  |
| <input type="checkbox"/> (Other) <u>Change of Agent's Firm Name, Address and Phone Numbers</u> |  |
| <input checked="" type="checkbox"/> Declaration of T. G. Theofanous under 37 C.F.R. 1.68       |  |
| <input checked="" type="checkbox"/> Petition for Retroactive License Under 37 C.F.R. 5.25      |  |

TITLE: Ex-Vessel Core Melt Retention Device Preventing Molten Core Concrete Interaction

INVENTOR: PARK et al.

Serial No. To be assigned

DOCKET No. 66476-024

DATE: 12/22/00

DUE: 12/28/00

CLIENT: Young International

charge deposit account \$-0-



66476/024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	PATENT
	)	
Jong Woon PARK et al.	)	
	)	
Serial No.	)	
	)	
Filed: Herewith	)	

Ex-Vessel Core Melt Retention Device  
Preventing Molten Core Concrete Interaction

\* \* \* \* \*

PETITION FOR RETROACTIVE LICENSE UNDER  
37 C.F.R. 5.25

December 22, 2000

Sirs:

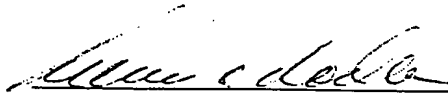
Applicants hereby petition for license for foreign filing, attached hereto, to be granted retroactive under the provisions of 37 C.F.R. 5.25.

The attached application was filed with the Korean Patent Office on December 28, 1999, under application Serial No. 1999-63392.

A verified Declaration of Mr. T. G. Theofanous, the co-inventor who made his invention in the United States, is attached herewith in accordance with 37 C.F.R. 5.25(a) (3)(i)-(iii).

Please charge the petition fee under 37 C.F.R. 1.17(h) in the amount of \$130 to our Deposit Account No. 04-2223.

Respectfully submitted,



---

Lawrence R. Radanovic, Reg. No. 23,077

Attorney for Applicant

DYKEMA GOSSETT PLLC  
FRANKLIN SQUARE -THIRD FLOOR WEST 300  
1300 I Street, N. W.  
Washington, D.C. 20005

ID28676

66476/024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jong Woon PARK et al.

Serial No.

Filed:

) PATENT  
)  
)  
)  
)  
)  
)

Ex-Vessel Core Melt Retention Device  
Preventing Molten Core Concrete Interaction

\* \* \* \* \*  
DECLARATION OF T. G. THEOFANOUS  
UNDER 37 C.F.R. 1.68

I, T. G. Theofanous, hereby declare and state that:

I am a joint inventor of the invention set forth in the above-identified application;

I am a citizen of the United States of America, residing at 857 Sea Ranch Drive,  
Santa Barbara, California 93109;

The invention as set forth in the above-identified application was made by me as  
a co-inventor in the United States;

I submitted a draft of my report entitled "An Ex-Vessel Coolability Concept For  
KNGR" to Dr. Jong Woon Park of KEPRI in South Korea by letter dated March 1, 1999  
(copy enclosed) *indicating the patentable value of it.*  
~~to determine if there was any interest in supporting such work.~~

Dr. Park wrote back to me on March 2, 1999 (copy enclosed) and on March 13, 1999  
(copy enclosed) Dr. Park e-mailed me several questions on the paper. On July 28, 1999, *26*  
*11/24/00*

1999 (copy enclosed) I received an e-mail from Dr. Park in response to mine of July 13. On February 17, 2000 I received an e-mail from Dr. Park (copy enclosed) informing me for the first time that a Korean patent application had been filed on my invention. By letter of February 17, 2000 (copy enclosed) I contacted a U.S. attorney to determine what my options were. On July 13, 2000 I wrote to Dr. Park (copy enclosed) to tell him about the "issues" raised by my U.S. attorney. He responded immediately, telling me that he understood, but that "things have gone too far." He advised me to wait and let the "Korean Patent Office submit the EVR patent application to U.S." I responded that he told me to make preparations with the U.S. patent, and that I was surprised with his position. No response was received until July 26, 2000 (copy enclosed) apologizing for being late, but not really responding to my e-mail of July 13, 2000. I received an e-mail on July 31, 2000 (copy enclosed) attaching the recently revised and corrected patent document on EVR received from his patent agency. On August 29, 2000 (copy enclosed) I got a fax from Dr. Park asking me to execute the Combined Declaration and Power of Attorney. On August 30, 2000 I sent an e-mail (copy enclosed) to Mr. Choi, a member of management of KEPRI. On October 4, 2000, I telephoned Lawrence R. Radanovic, Esq. of Dykema Gossett PLLC, and we discussed several background matters. I indicated that my U.S. attorney had advised that a retroactive foreign filing license must be obtained before filing of the application in the United States. On October 25, 2000 I sent Mr. Radanovic materials from my file relevant to this project;

After my discovery that the application had been first filed in Korea, I diligently sought the filing of an application corresponding thereto in the United States as well as a retroactive license for foreign filing, also as documented by the chronology of events set forth above;

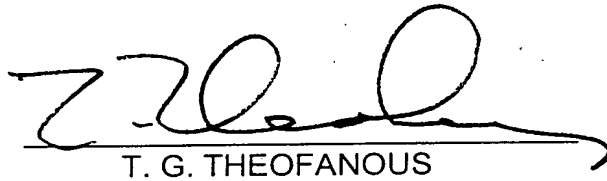
The Korean patent application was first filed through error, and without deceptive intent and without the required license under section 5.11 having first been obtained;

To the best of my knowledge and belief the invention set forth in the subject Korean application does not disclose an invention within the scope of 35 U.S.C. 181;

To the best of my knowledge and belief the subject invention was not under a secrecy order at the time it was filed abroad, and that it is not currently under a secrecy order;

To the best of my knowledge or belief the subject invention was not made or conceived in the course of, or in connection with, or under the terms of any contract, subcontract, or arrangement entered into with or for the benefit of United States Atomic Energy Commission or its successors; Energy Research and Development Administration or the Department of Energy.

The undersigned declares further that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application or any resulting registration, and that all statements made of his own knowledge are true and all statements made herein on information and belief are believed to be true.


  
T. G. THEOFANOUS

Date: 11/24/00

parkjw@kepri.re.kr,3/1/99 3:44 PM -0700,Draft Report

1

To: parkjw@kepri.re.kr  
From: Eileen Horton <eileen@theo.ucsb.edu>  
Subject: Draft Report  
Cc:  
Bcc:

X-Attachments:  kepri.pdf

Dear Dr. Park:

Attached is a draft of my report, as promised. If you cannot read it, please let me know, and I will be able to fax it to you (please let me have your fax number).

I am excited about the prospects of commercializing this idea. It can work very well, even for existing reactors. I would recommend that KEPRI file for an international patent as soon as possible. If by chance KEPRI is not interested, I would hope you would let me know so that I can file for a patent myself.

I am looking forward to having KEPRI's comments on this draft, so I can finalize it. Especially, feel free to tell me of any areas where my reasoning is not clear enough or if you need further details.

Sincerely yours,

T.G. Theofanous, President  
Theofanous & Co., Inc.

#1

Jong Woon Park, 3/2/99 3:21 PM +0900, Re: Draft Report

1

X-Sender: parkjw@168.78.8.10  
 Mime-Version: 1.0  
 Date: Tue, 02 Mar 1999 15:21:34 +0900  
 To: "Professor Theofanous" <theo>  
 From: Jong Woon Park <parkjw@kepri.re.kr>  
 Subject: Re: Draft Report  
 Cc: eileen

Dear Professor Theofanous:

I received your report. It is good to read. Thank you for your elaboration.

We wish to file this idea for a patent. However, please give me 1 or 2 week to review and prepare questionnaires for full understanding, and to discuss with Dr. Oh. (Frankly, I have many questions.) I wish coming questions would not cause you a trouble.

My fax and phone numbers are changed to:  
 Fax: 82-42-865-5704  
 Phone: 82-42-865-5738

Sincerely,

Jong Woon Park  
 CARD/KEPRI

At 03:54 ÀÄÄ 99-03-01 -0700, you wrote:

>Dear Dr. Park:

>  
 >Attached is a draft of my report, as promised. If you cannot read it,  
 >please let me know, and I will be able to fax it to you (please let me have  
 >your fax number).

>  
 >I am excited about the prospects of commercializing this idea. It can work  
 >very well, even for existing reactors. I would recommend that KEPRI file for  
 >an international patent as soon as possible. If by chance KEPRI is not  
 >interested, I would hope you would let me know so that I can file for a patent  
 >myself.

>  
 >I am looking forward to having KEPRI's comments on this draft, so I can  
 >finalize it. Especially, feel free to tell me of any areas where my reasoning  
 >is not clear enough or if you need further details.

>  
 >Sincerely yours,

>  
 >T.G. Theofanous, President  
 >Theofanous & Co., Inc.

>  
 >Attachment Converted: c:\eudora\attach\kepri.pdf

>

Dear Dr Park  
 I am delighted that you  
 enjoyed my report. I had  
 some tough time coming up  
 with an idea that would  
 appear to be neat, cheap,  
 and acceptable.  
 I am happy that you  
 agree with the patent idea.  
 Looking forward to  
 your comments.  
 Sincerely  
 T.G.

Printed for T: Theofanous <theo@theo.ucsb.edu>



Jong Woon Park, 7/13/99 3:52 PM +0900, A Question

Date: Tue, 13 Jul 1999 17:52:55 +0900  
 From: Jong Woon Park <parkjw@kepri.re.kr>  
 Organization: KEPRI  
 X-Accept-Language: en,ko,ja  
 MIME-Version: 1.0  
 To: theo@theo.ucsb.edu  
 Subject: A Question

#3  
 Dear Professor Theofanous:

How have you been?

It is so bad that we cannot go further with EVC concept. However, we are interested in that design so much and I am waiting for an official final progress report.

Anyway, I wish to ask you a question if it does not cause you an inconvenience.

I am attaching a letter entitled "Lessons Learned from the ACRS Review of the AP600 Design" (from Mr. Dana A. Powers to Dr. William D. Travers at NRC).

In the section on "In-Vessel Retention of Core Debris" of the attached letter, it is said that "... More experiments and analyses are needed before in-vessel core debris retention can be credited as part of the licensing basis. At this time, we believe in-vessel core debris retention should only be considered as a severe accident management strategy"

I think that FSER of NRC to grant a Final Design Approval to AP600 design means IVR is credited as a Licensing Basis. In this regard, I wish to hear your opinion.

Looking forward to hearing from you soon.

Sincerely,

Jong Woon Park  
 CARD/KEPRI

March 22, 1999

Dr. William D. Travers  
 Executive Director for Operations  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555-0001

Dear Dr. Travers:

SUBJECT: LESSONS LEARNED FROM THE ACRS REVIEW OF THE AP600 DESIGN

During the 460th meeting of the Advisory Committee on Reactor Safeguards, March 10-13, 1999, we completed deliberations regarding lessons learned from our review of the AP600 passive plant design. As noted in our July 23, 1998 report, issues on the safety aspects of the AP600 application were resolved to our satisfaction. In the course of our review, however, we identified some lessons learned that could affect reviews of future applications or that could be relevant to operating plants.

Printed for Gail <gail@theo.ucsb.edu>

Now regarding your question. Actually because of political reasons we went on both sides of the issue. Officially we declared IVR was not accepted as licensing basis, but unofficially we have a decision on it. Actually, again for political reasons, they never gave IVR a full hearing.

Dear Dr. Park note came on 1 way. Funny that your note came on the patent. Thinking he write up on the patent. I understand you meeting the lawyers July 17, so wanted you to have it a few days before. Please tell lawyers we need to have some generality in description so we cover our claim well, and against any v mal changes by others. My final report will follow shortly. Is it true that you have not comments for suggestions? Otherwise it will be pretty much what you have already created for me?

10

Jong Woon Park, 7/26/99 9:20 AM +0900, Re: Utility Patent Application

1

Date: Mon, 26 Jul 1999 09:20:39 +0900  
 From: Jong Woon Park <parkjw@kepri.re.kr>  
 Organization: KEPRI  
 X-Accept-Language: en,ko,ja  
 MIME-Version: 1.0  
 To: eileen <eileen@theo.ucsb.edu>  
 Subject: Re: Utility Patent Application

For the time being, I have been out of office.  
 I received the e-mail. Thank you.

Jong Woon Park  
 CARD/KEPRI

#4

eileen wrote:

> Dear Dr. Park:  
 >  
 > Professor Theofanous asked me to check with you to be sure that you  
 > received his e-mail of July 13 regarding the Utility Patent Application.  
 > He is concerned because you are usually so prompt in responding. If you  
 > did not receive the e-mail please let me know, and I will be happy to send  
 > it once more.  
 >  
 > Thank you for your consideration.  
 >  
 > Sincerely,  
 >  
 > Eileen S. Horton  
 > Admin Assistant to  
 >  
 > T.G. Theofanous

Mont

Joint progr

And. S  
 8:30  
 Hum-  
 SM  
 +  
 WRC  
 Fri  
 WRC

Weds

2:00

Wed

Patrol

PES

LEFT

Jong Woon Park, 2/17/00 6:23 PM +0900, Preparing a Patent for USA

1

From: "Jong Woon Park" <parkjw@kepri.re.kr>  
To: "eileen" <eileen@theo.ucsb.edu>  
Subject: Preparing a Patent for USA  
Date: Thu, 17 Feb 2000 18:23:59 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

How are you.  
Here is a good news.

Our upper manager told me to expedite the patent application for EVR to USA.  
I will try to finish the process in March.  
I appreciate that you have waited so long.  
Until the document is submitted to US patent office, I think Korean patent application will protect the priority as our lawyer said.  
So I think you can process for the new research on EVR in USA.

In the near future, I wish to submit a plan for research project in relation with EVR idea. So if possible, please let me know in what specific area of EVR verification Korean organization can contribute.

Sincerely,

Jong Woon Park  
CARD/KEPRI

#5

=?ks\_c\_5601-1987?B?udrBvr/u?=: 7/13/00 9:18 AM +0900, Re: US patent

From: "?ks\_c\_5601-1987?B?udrBvr/u?=" <parkjw@kepri.re.kr>  
To: "theo" <theo@crss.ucsb.edu>  
Subject: Re: US patent  
Date: Thu, 13 Jul 2000 09:15:33 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

I understand the situation where you stand.

However, things are gone too far.

The patent for EVR with KEPRI guy's names are already issued to Korean patent office for US application. If you progress the patent in US also, it will damage ourselves since KEPRI is spending money and time for that.

Actually, I am not that much interested to be a primary inventor. It was only a administrative way. Since KEPCO is public company, near every contract is based on KEPCO's and Korean rule. The same is true for the intellectual property. KEPRI will always say EVR is the KEPCO's property based on the Contract.

I think the problem comes from the fact that you are progressing patent in USA. Even though it is delayed too much, I wish you could be patient until Korean patent office submit the EVR patent to US. We are at the front door.

Sincerely,

Jong Woon Park  
Center for Advanced Reactors Development  
Korea Electric Power Research Institute (KEPRI)  
103-16 Munji-Dong, Yusung-Gu  
305-380, Taejeon, Korea

----- Original Message -----

From: theo

To: parkjw@kepri.re.kr

Sent: Thursday, July 13, 2000 6:44 AM

Subject: US patent

Dear Dr. Park:

In my pursuit of our patent here with the lawyers, I have encountered a couple of serious problems that you need to bring immediately to the attention of your management.

1. Apparently there is a law here that dictates that all discoveries made on US soil should be first patented in the US patent office. This applies independently from who paid for or who owns the invention. I did not know of any such law, but I am surprised that KEPRI's lawyers did not know about this law. In any case, my lawyer here thinks we can recover, by making a special application that explains the situation and pleads ignorance.

2. There is another strict aspect of patent law here that requires that only the real inventors appear on a patent. This is so severe that if it is found to be not true, the whole patent can be lost. In our case, the problem is that on the Korean patent they have put your name and Ohns as inventors. Since you have not been involved in the investigation, this is very risky and unacceptable for the US patent, according to my lawyer. Again, I did not know that, and frankly I don't even care if your names are on, but I didn't know until I saw the Korean application that you sent me that your names were on it too. Hopefully, this is not of concern in Korea, so there is nothing required for recovery, if we have only my name on the US patent. The KEPRI investors can be safeguarded by a special contractual agreement that is very easy to do, according to my lawyer here.

=?ks\_c\_5601-1987?B?udrBvr/u?=: 7/26/00 9:28 AM +0900, Re: Patent

From: =?ks\_c\_5601-1987?B?udrBvr/u?=: <>  
To: "theo" <theo@crss.ucsb.edu>  
Subject: Re: Patent  
Date: Wed, 26 Jul 2000 09:28:21 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

I am sorry that it's too late to respond.  
Please don't be unhappy. I would not quit communications.

The patent application for US is now at the Korean patent office.  
It will be submitted to US patent office in a moment. I have telephoned  
the lawyer to ask the exact time of submittal, but he is in vacation and  
will be back on Thursday.

I have talked to Korean lawyer about the patent problem. He said if  
we have a letter that you transfer your right for the EVR patent to KEPRI,  
there will be no legal problem in both US and Korea.

For the IVR, I understand what you want to say.  
I wish to state about situation of AP600 IVR in design point of view.  
For the large release frequency (level 2 PSA), the IVR is successful for  
only 65.7%. The reason is: in order for IVR to be successful, system  
depressurization and cavity flooding should be established.

Even though reactor vessel failure of AP600 would be physically  
unreasonable once depressurized and cavity flooded, the system  
failure (depressurization and cavity flooding) is not physically  
unreasonable.

That is the same situation for the KNGR. Difference is the probability of  
IVR once depressurized and flooded. Even though it is lower  
for the KNGR and may not be physically unreasonable, we have to  
think in a systems point of view. I think we don't have to pose  
too many resources to one severe accident strategy since there  
is no physically unreasonable system failure.

I am preparing calculations as you requested.

Sincerely,

Jong Woon Park  
Center for Advanced Reactors Development  
Korea Electric Power Research Institute (KEPRI)  
103-16 Munji-Dong, Yuseong-Gu  
305-380, Taejeon, Korea

----- Original Message -----

From: theo  
To: parkjiw@kepri.re.kr  
Sent: Wednesday, July 26, 2000 3:15 AM  
Subject: Patent

Dear Dr. Park:

You have done this before, so I don't mind telling you that I do not appreciate your shutting  
off the communications, on the excuse that you are away, whenever you wish. I am very unhappy  
and I am going to take steps to make this known, unless I hear from you in two days from now  
something that makes sense.

4/11  
It is normal but  
during such submittal  
for lawyers work with  
the inventor, to make  
the best possible  
representation. I need  
to talk to your  
management urgently.  
(in a)

Dear Dr. Park  
I am very unhappy  
because your lawyers do not  
know what they are doing.  
One needs much experience  
to prepare properly a patent.  
My lawyer here had to  
rewrite almost  
the whole thing.  
-JW

TO :  
FROM :

PHOTO :

NOV. 19. 2000 10:05PM P 5

=?ks\_c\_5601-1987?B?uDrBvr/u?=  
7/31/00 6:30 PM +0900, Re: Patent

From: #7ks\_c\_5601-1987?B?uDrBvr/u?=<>  
To: 'theo' <theo@theo.ucsb.edu>  
Subject: Re: Patent  
Date: Mon, 31 Jul 2000 18:30:53 +0900  
X-Priority: 3  
Status:

Dear Professor Theofanous:

Waiting for your response to my previous e-mail.  
I am attaching the recently revised and corrected patent document  
on EPR received from our patent agency.

Looking forward to receiving your comments on that.

Sincerely,

Jong Woon Park  
Center for Advanced Reactors Development  
Korea Electric Power Research Institute (KEPRI)  
103-16 Munji-Dong, Yusong-Gu  
105-380, Taejeon, Korea

Attachment converted: Archive:X1602.doc (WDBN/MSWD) (000025P0)

5/11 1  
Also I have  
not contacted  
your management  
yet. I will do  
next week.  
✓  
Dear Dr Park what  
I don't know waiting for  
e-mail you are As far  
me to respond to. As far  
I know I have responded  
to all previous e-mails.  
I didn't get a chance  
to read carefully for  
patent your lawyer  
prepared because  
of travel. I will  
do with in  
January

Printed for theo <theo@theo.ucsb.edu>

## FAX COVER SHEET

Korea Electric Power Research Institute  
Korea Electric Power Corporation

Yusung-gu, Munji-dong  
103-16, Taejon, 305-380  
Korea  
Fax: 82-42-865-5704

6/11

Date: August 29, 2000  
No. of pages to follow: 4

TO: Professor Theofanous  
CRSS, UCSE  
Phone:  
Fax: 1-805-682-2033

FROM: Jong Woon Park  
KEPRI  
Phone: 82-42-865-5738  
Fax: 82-42-865-5704  
E-Mail: parkjw@kepri.re.kr

---

### MESSAGE

Dear Professor Theofanous:

Have you reviewed the patent document? Please let me know if it should be modified.

Our patent agency appointed US attorney for USA application of patent on EVR, and asked us to sign on the attached "Combined Declaration and Power of Attorney for Utility Patent Application".

Please sign inside the box titled "Inventors Signature" on the right side of your name in page 2, and re-send it to me by air mail (we need original one).

Best Regards,

Jong Woon Park

---

Ramp@kepri.re.kr, 8/30/00 8:44 AM -0700, Patent

1

To: Ramp@kepri.re.kr  
From: theo <theo@theo.ucsb.edu>  
Subject: Patent  
Cc: ikyang@kepri.re.kr  
Bcc:

11/11

X-Attachments:

Dear Mr. Choi,

As you may know, my work for KEPRI on KNGR debris coolability has led to a new and interesting design concept that I thought was patentable. Unfortunately, what should have been a very good experience for all of us is becoming increasingly more messy and time consuming. I am especially disturbed and disappointed by KEPRI's handling of this whole situation, at least as far as it is evidenced through my contact, Dr. Jong Woon Park. Further, we are running a serious risk of failing to capitalize on what I think is a breakthrough in reactor accident management, not only for advanced, but also for existing reactors.

Throughout this painful process, Dr. Park keeps telling me that he follows "orders" from superiors, so really my contention is not with him. In fact, neither is it with anybody else, but I thought you should know that the whole process, as being pursued by KEPRI, perhaps as a result of neglect, miscommunication, or whatever other reason, is not according to the high professional standards I am accustomed to.

Hopefully we can recover from it, but to do so will require an immediate mutual understanding, and a prompt change in how we go about it. Towards this end I have decided to write to you. This and to ask your opinion on how to accomplish this. My suggestion is that we begin with a brief phone conversation. If you agree, please let me know what times I can find you and where in the next few days, and I will be happy to call you. Or, you can call me when you come in this morning about 9 a.m. your time, 4 p.m. my time. I will be at the office (805) 893-4900.

Sincerely,

T O T H



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ BLACK BORDERS

☒ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES

☐ FADED TEXT OR DRAWING

☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING

☐ SKEWED/SLANTED IMAGES

☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS

☐ GRAY SCALE DOCUMENTS

☐ LINES OR MARKS ON ORIGINAL DOCUMENT

☒ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**